

REMARKS

Claims 5-12 are pending in the present application. Claims 8, 11 and 12 are allowed. Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,247,082 to Lo et al., (“Lo”) in view of U.S. Patent No. 6,032,078 to Bacigalupo et al., (“Bacigalupo”). Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Lo in view of Bacigalupo in further view in view of U.S. Patent No. 5,528,215 to Siu et al., (“Siu”). Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lo in view of Bacigalupo in further view in view of U.S. Patent No. 6,058,443. to Gulick et al., (“Gulick”).

Rejections under 35 U.S.C. §103(a) over Lo and Bacigalupo

Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lo in view of Bacigalupo.

Lo describes computer subsystems 100a and 100b using interface circuits 110a and 110b and a message bus 150. See col. 4, lines 50-54, and Fig. 2. Interface circuit 110a receives an acknowledge signal (AQ) over line 126 from clock domain 2 of computer subsystem 100b. See col. 5, lines 64-67.

Bacigalupo describes a bus system with at least one primary unit, at least one secondary unit, a bus between the units and a bus control unit controlling the bus and data transmission between units. See col. 1, lines 12-21.

Independent claim 5 of the present application recites, among other features, a master device and slave device with respective first and second arithmetic units and “a acknowledgment signal line configured for a transmission of an acknowledgment signal from the slave device to the master device” wherein “the first arithmetic unit is configured so that a capability of the master device to initiate a further write operation to the slave device is dependent upon a receiving of the acknowledge signal from the slave device.”

As described in the Specification, the “acknowledgement line enables the slave device to inform the master device of the receipt of the transmitted data and that the processing of the data as well as the corresponding interference suppression have been completed. The master device will not initiate any new operation in which this slave is involved until it has received the acknowledgement signal from the slave device.” See, Specification, paragraph [0011].

It is respectfully submitted that Lo and Bacigalupo do not teach or suggest those features of claim 5. The OA admits that Lo does not disclose or suggest the claim limitation that the master and slave interfaces are capable of being connected via an acknowledgement signal line configured for a transmission of an acknowledgment signal from the slave device to the master device. Accordingly, Lo also does not disclose that initiation of a further write operation being dependent upon receiving the acknowledgment signal. Likewise, Applicant submits that there is no teaching or suggestion in Bacigalupo for this feature. The Examiner's reference to column 5, lines 33-48 of Bacigalupo (see Office Action at page 3) does not appear to include a suggestion that the acknowledgement signal from the slave device to the master device is required for the initiation by the master device of a further write operation to the slave device.

Instead, Fig. 2 of Bacigalupo, which shows time characteristics of signals on the signal lines of the Bacigalupo bus system demonstrates otherwise. In Fig. 2, the data blocks sent over data bus 6 (identified by the Examiner as a data transmission line) are shown as being sent successively from the slave unit 2 to the master unit 1. There is no indication that a further write operation initiated by the master unit 1 is in any way dependent upon of the acknowledgement signal from the slave unit 2. Instead the "receiving master unit 1 uses the ACK signal to acknowledge that the data or error states signals have been received correctly." See Bacigalupo column 9, lines 47-50.

Moreover, the combination of Lo and Bacigalupo suggests neither a first arithmetic unit for generating an acknowledgement signal nor a second arithmetic unit configured to enable the master device dependent on a receipt of the acknowledgement signal as recited in claim 5.

Because each of Lo and Bacigalupo fails to suggest at least the above-recited features of independent claim 5, any combination of these references, to the extent proper, could not render claim 5 or any of its dependent claims obvious. Accordingly, Applicant respectfully requests withdrawal of the rejection of independent claims 5 and 6 under 35 U.S.C. §103(a) based on Lo in view of Bacigalupo.

Rejections under 35 U.S.C. §103(a) over Lo, Bacigalupo, and Siu

Claim 7 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Lo in view of Bacigalupo in further view of Siu.

Siu describes a building automation system using complementary modules, one of which is an expansion module. See abstract.

However, Siu does not suggest the limitations discussed above that are missing from Lo and Bacigalupo. Also claim 7 depends from independent claim 5, which is patentable for at the reasons discussed above. Accordingly, Applicant respectfully requests withdrawal of the rejection of dependent claim 7 under 35 U.S.C. §103(a) based on Lo in view of Bacigalupo and Siu.

Rejections under 35 U.S.C. §103(a) over Lo, Bacigalupo, and Gulick

Claims 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lo in view of Bacigalupo in further view of Gulick.

Gulick describes a system in which data is transferred between first and second integrated circuits in frames which includes a predetermined number of data bits and preassigned slots for the states of the input and output signals, so as to continuously transfer the state of the input and output signals to and from the input and output pins of the second integrated circuit at a predetermined rate. See abstract.

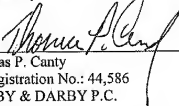
Gulick's use of a predetermined rate is fundamentally opposite of Applicant's invention that uses an acknowledgment signal to control transfer data. Thus, Gulick teaches away from the acknowledgement feature of claims 9 and 10. In any case, Gulick does not disclose or suggest the limitations discussed above that are missing from Lo and Bacigalupo. Also claims 9 and 10 depend from independent claim 5, which is patentable for at the reasons discussed above. Accordingly, Applicant respectfully requests withdrawal of the rejection of dependent claims 9 and 10 under 35 U.S.C. §103(a) based on Lo in view of Bacigalupo and Gulick.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue. If any issues remain, the Examiner is invited to telephone Applicant's attorney at the number below.

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Respectfully submitted,

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